

ADDRESSING STRUCTURAL BARRIERS TO EFFICIENCY PROBLEMS AND SOLUTIONS

MA Health Policy Commission Cost Trends Hearing

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President and Chief Executive Officer

October 1, 2013
University of Massachusetts Campus Center
Boston, MA



In the Beginning: What We Knew

- *Lucian Leape's "Error in Medicine"*
(JAMA, 12/21/1994)
 - *Avoidable in-hospital deaths equivalent to three jumbo jet crashes every two days*
 - *180,000 in-hospital deaths partly as a result of iatrogenic injury*



We Went Shopping for Answers: What We Observed in Health Care

W. Edwards Deming, PhD: “*Where Art Thou?*”

- *Chaos*
- *Uncertainty*
- *Random Behaviors*
- *Work-Arounds*
- *Confusion*
- *Disorder*
- *Errors*
- *High Turnover*
- *Secrecy*



High Value Organizations Adopt Toyota/Lean Production Thinking

- Problems identified and solved immediately
- Rapid root cause analysis
- Organized work areas
- Concise communication
- Active involvement of managers
 - “Go and see”
 - On the floor
- Intense respect for the employee
 - Every employee has what they need, when they need it, to succeed
 - Career development
- Team problem solving to meet customer need

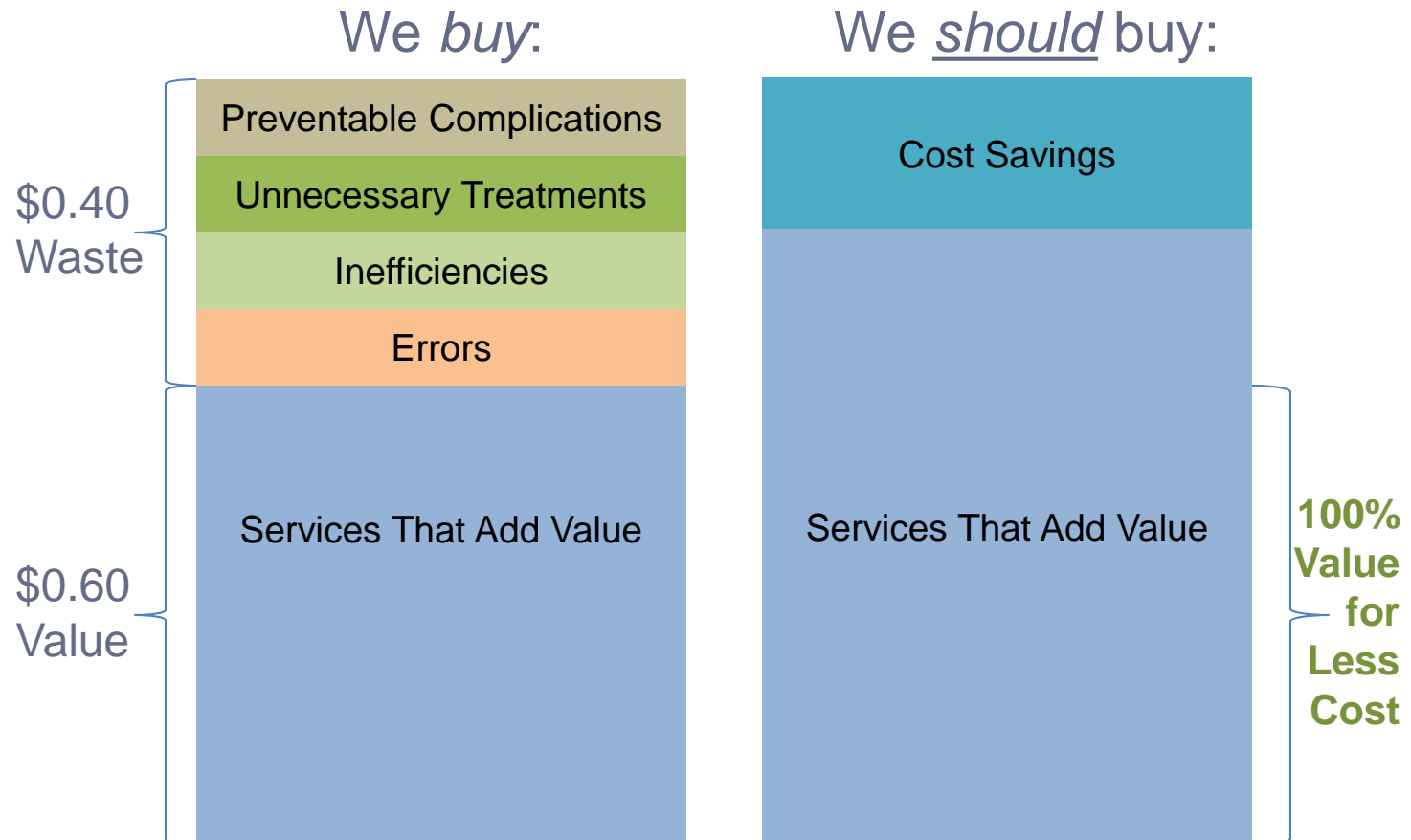


What and Why: Pittsburgh Regional Health Initiative

- Pittsburgh Regional Health Initiative (PRHI)
 - A not-for-profit, regional, multi-stakeholder collaborative formed in 1997 by Karen Feinstein and Paul O'Neill
 - An initiative of a business group, the Allegheny Conference on Community Development
- PRHI's message
 - Dramatic quality improvement (approaching zero deficiencies) is the best cost-containment strategy for health care

Value Reform From Now to Future

For every \$1:



REVOLUTIONS ARE BORN
OF **HOPE**
AND NOT DESPAIR

WE BROUGHT LEAN QI
TO HEALTH CARE

We Created Our **METHOD** of Quality Improvement: Perfecting Patient CareSM

- Adapted from Lean/Toyota Production System
- Patient-focused systems redesign
- Can be applied in the course of everyday work
- The ultimate goal is perfection



The Pittsburgh Regional Healthcare Initiative and Health Careers Futures are in the Training and Education Business

- Salk, QIT Innovators and Patient Safety Fellowships
- Perfecting Patient CareSM Universities, 4 per year
- Champions Programs
- *Closure* sessions
- Board and Committee meetings
- REACH extension services
- HIV/AIDS Quality Improvement
- Grant Related: AHRQ/PIC; CMMI (1) and (2) and SNMHI
- Tomorrow's HealthCareTM
- Motivational Interviewing
- I-WISE
- Caregiver Training
- Summer Interns

BUT ALL ARE IN THE C.E. SPACE

STRUCTURAL BARRIERS

And Solutions

1. HEALTHCARE ORGANIZATIONS
ARE NOT STRUCTURED
FOR HIGH PERFORMANCE.

We Went Shopping for Answers: What We Observed in Health Care

W. Edwards Deming, PhD: “*Where Art Thou?*”

- *Chaos*
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- *Secrecy*



ORDERS
FILED BY

PRINT FOR OR INFO

TO ACCUSATIONS

ACCOUNT



What Does a Problem-Solving Infrastructure Look Like



The Case of Toxic Surgical Tape



The Pharmacy in the Ceiling

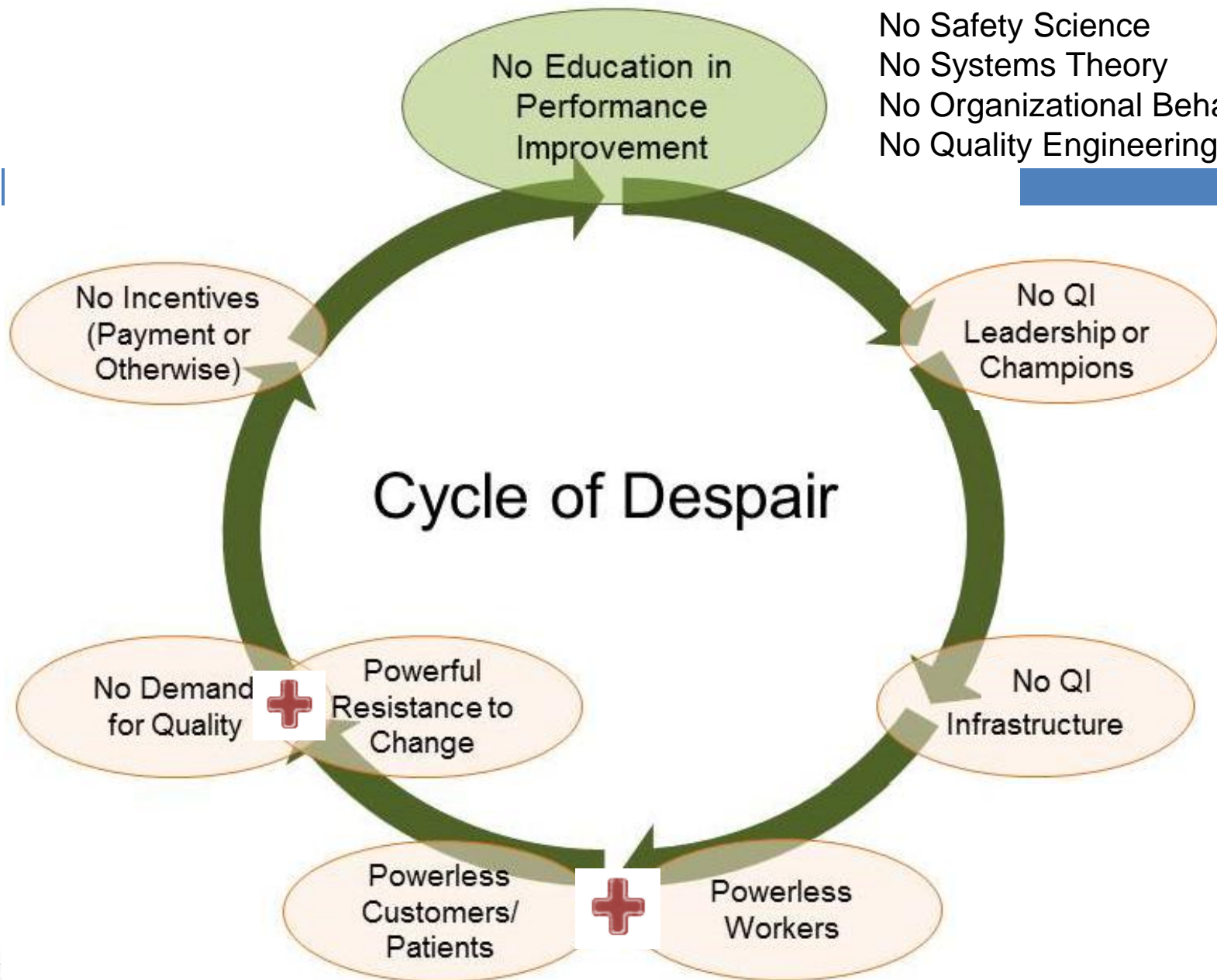


A Solution: Build A Problem-Solving Infrastructure

STRUCTURAL BARRIERS

2. HEALTHCARE PROFESSIONALS GET NO EDUCATION IN CREATING HIGH PERFORMING ORGANIZATIONS.

No Safety Science
No Systems Theory
No Organizational Behavior
No Quality Engineering



A Solution Yet to be Realized

- The ACGME outlined expectations for a sixth core competency of systems-based practice in the Next Accreditation System.

System-Based Practice

- The components of SBP in which trainees must demonstrate proficiency are:
 - Coordinate patient care within the healthcare system relevant to their clinical specialty
 - Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate
 - Work in interprofessional teams to enhance patient safety and improve patient care quality
 - Participate in identifying systems errors and implementing potential systems solutions

STRUCTURAL BARRIERS

3. THERE ARE FEW
INCENTIVES FOR
HIGH PERFORMANCE.

From **VOLUME** to **VALUE**

Transforming Health Care Payment
and Delivery Systems to Improve Quality
and Reduce Costs

.....

NRHI Healthcare Payment Reform Series

**PAY FOR INNOVATION OR PAY
FOR STANDARDIZATION?**

How to Best Support the Patient-Centered Medical Home

Special report: Deciding what to pay nurses can get you sued / Page 26

Modern Healthcare

THE DAY'S NEWS WEEKLY DECEMBER 17, 2007

The cover features a photograph of Harold Miller and Karen Feinstein. Miller is on the left, wearing a dark suit and red tie. Feinstein is on the right, wearing a blue blazer and a pearl necklace. In the background, there is a bar chart titled 'CLAB' with three bars: 'CLAB Cost' (blue), 'CLAB Prev' (green), and 'CLAB Cost' (blue). A red line graph is also visible. The text 'CLAB Cost' is repeated under the first and third bars. A red box contains the text 'MEDICARE PAYS MORE WHEN PATIENTS GET INFECTIONS'. The main headline is 'HOSPITAL-ACQUIRED REVENUE'. To the right of the headline, it says 'Critics cite paradox for slow progress on hospital infection control effort and need to fix financial incentives / Page 6'. At the bottom, there are three more headlines: 'Round 4: The fight over SCHIP / Page 8', 'What happened to gain-sharing? / Page 30', and 'Lack of RHIO money hurts docs / Page 32'. The bottom left corner has the 'craigslist' logo and the website 'MODERNHEALTHCARE.COM'. The bottom right corner has the name 'Dave Rantz, VP'.

Harold Miller and Karen Feinstein found little reward in reducing infection costs.

MEDICARE PAYS MORE WHEN PATIENTS GET INFECTIONS

HOSPITAL-ACQUIRED REVENUE

Critics cite paradox for slow progress on hospital infection control effort and need to fix financial incentives / Page 6

Round 4: The fight over SCHIP / Page 8

What happened to gain-sharing? / Page 30

Lack of RHIO money hurts docs / Page 32

MODERNHEALTHCARE.COM

Dave Rantz, VP

A Solution: ACA Payment Reforms ...

... on the horizon?



- Accountable Care Organizations
- Bundled Payments — Episodes of Care
- Merit Raises and Promotions

STRUCTURAL BARRIERS

4. WE HAVE LEADERSHIP FAILURES.

Pittsburgh Regional Health Initiative

- Founders:
 - Karen Wolk Feinstein, PhD
 - President and CEO since founding
 - Paul O'Neill
 - Alcoa Chairman 1987-1999
 - U.S. Treasury Secretary 2001-2002



The Executive Role in Transformation



- Paul O'Neill - Alcoa Chairman, 1987-1999
- Corporate commitment to reduce workplace injury rate to zero
- Imported Toyota Production System, manager accountability, real-time data reporting to Alcoa; reduced workplace injuries by 90% over 12 years
- Alcoa became the safest company in the world

Lean Leaders

- Senior Leadership and Middle Management
 - Walk the walk
 - Recognize employees
 - Build internal teams
 - Problems addressed real-time major issues
 - Live the values
 - Talk the talk



Transforming Healthcare Organizations:

Hit all the notes on the xylophone or no music



The Web-based Solution: Tomorrow's HealthCare™

Managing
for
Efficiency
Safety
Q.I.

WELCOME TO TOMORROW'S HEALTHCARE!

Tomorrow's Healthcare™ takes clinical best practices, research and demonstrations from the frontier to catalyze clinical improvements at the frontline of care through its quality improvement tools, education, applications and professional networks.



Education

Access interactive and accredited **Education** materials to strengthen your quality improvement knowledge base.



Quality Improvement

Develop, implement and sustain successful **Quality Improvement** projects using the tools of Tomorrow's Healthcare™.



Community

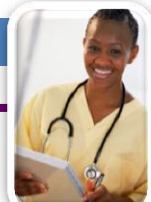
Join one of our topic-specific **Communities** to access important resources and relevant discussion groups.



ePortfolio

Use the **ePortfolio** to manage all of your education and quality improvement achievements.

Tomorrow's HealthCare™



Learning



- Perfecting Patient CareSM Online
- Demonstrations & tools
- Certification & accredited education
- Case studies & examples

Process & Quality Improvement



- Lean tools & techniques
- Assessment templates
- Registries
- Sample interventions
- Implementation & planning guides

Customized ePortfolio



- Individual, team & institute projects
- Educational credit & project tracking
- Project progress assessment tools

Professional Networking



- Communities of interest
- Best practice sharing
- Open source content development
- Discussion boards

Response	Percentage
Yes	75%
No	25%



“You do whatever you can to keep the lungs open.”



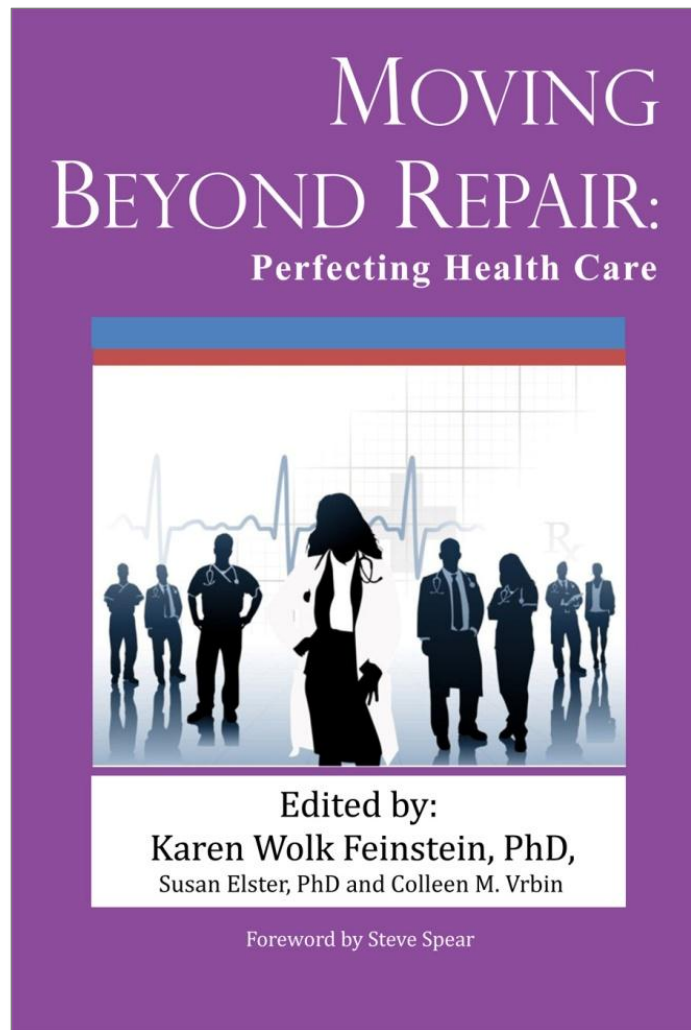
What Matters: How the Best Achieve Results

Focus
Consistency
Assertiveness
Invention

STRUCTURAL BARRIERS

**5. HEALTH CARE EMPLOYS
LEAN FOR REPAIRS
AND SPOT REMOVAL.**

Moving Beyond Repair: Perfecting Health Care

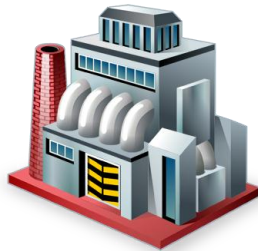


LEAN Teaches Systems Thinking

LEAN Thinking: Perfect Customer Systems



Suppliers



Manufacturing



Distribution



Retail Sales



Customer Service

Health Systems Thinking: Excellence at Every Step



Primary Care



Pre-hospital Care



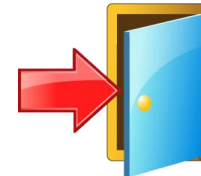
Emergency Room



Diagnostic Services



Inpatient Care



Transfer or Discharge

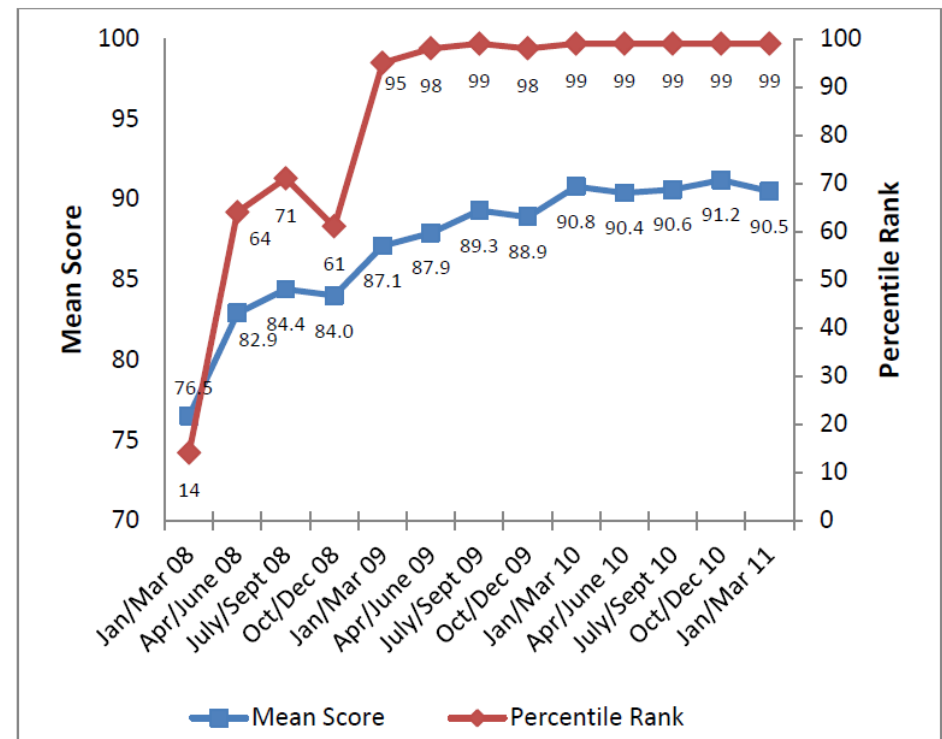


Home Care

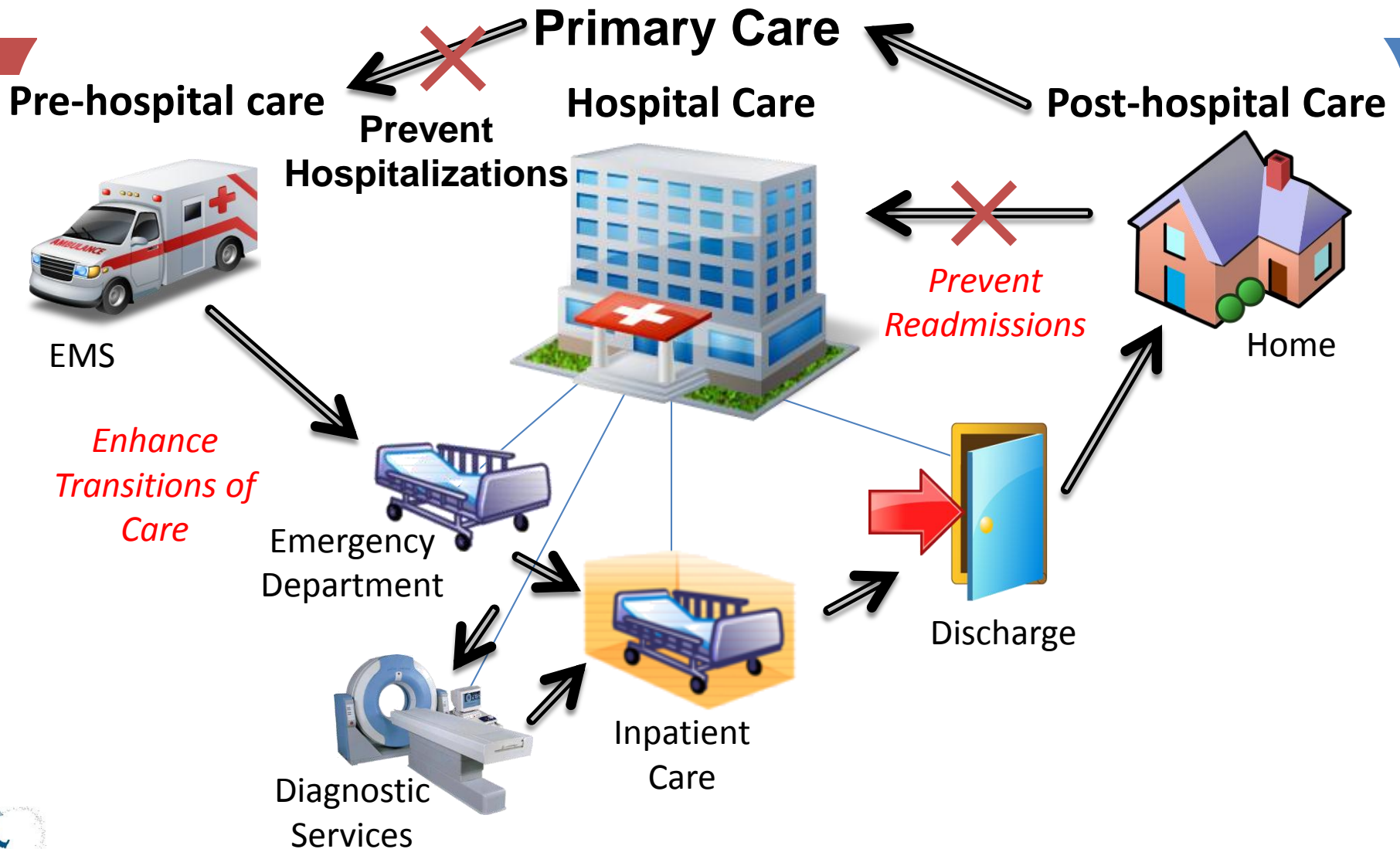
Repair: Lean Improves Emergency Department Flow in Hospital

- Door-to-Room time decreased from **47** to **4** minutes
- Patients who leave without being seen decreased from **130** to **8** per month
- Patient satisfaction increased from **77%** to **90%**
 - From **14th** percentile to **99th** percentile national rank

ED Patient Satisfaction Scores Over Time

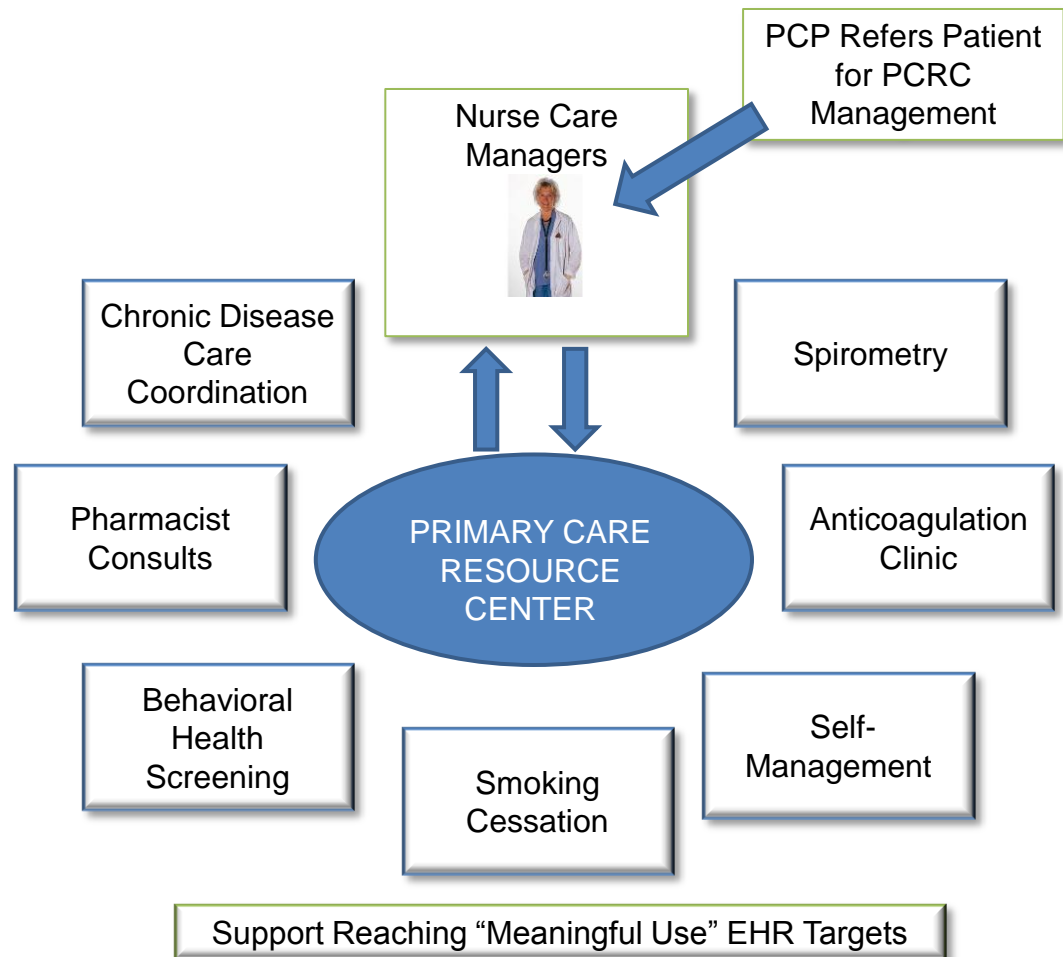


Systems Thinking Solution



Solution: Expand the Capacity of PCPs to Manage Complex Patients

- Supports team-based care coordination of chronic medical conditions, from admission
- Provides value-added primary care support services beyond the means of small practices
- Utilizes excess hospital space



STRUCTURAL BARRIERS

6. Culture Impedes Reform.

Protecting Bad Apples



and
not rewarding quality stars

In the Way of Quality Improvement



Solution to a Problem: Retention - Nurse Turnover

- Problem: nurse turnover on liver transplant unit went from 5% to 12% in one year
- Turnover cost per year: \$800,000
- Solution: engagement of nurses:
 - Gives nurses a voice to fix and solve problems
 - Levels work load
 - Encourages nurses to ask for, and render, help

To Calling for Help

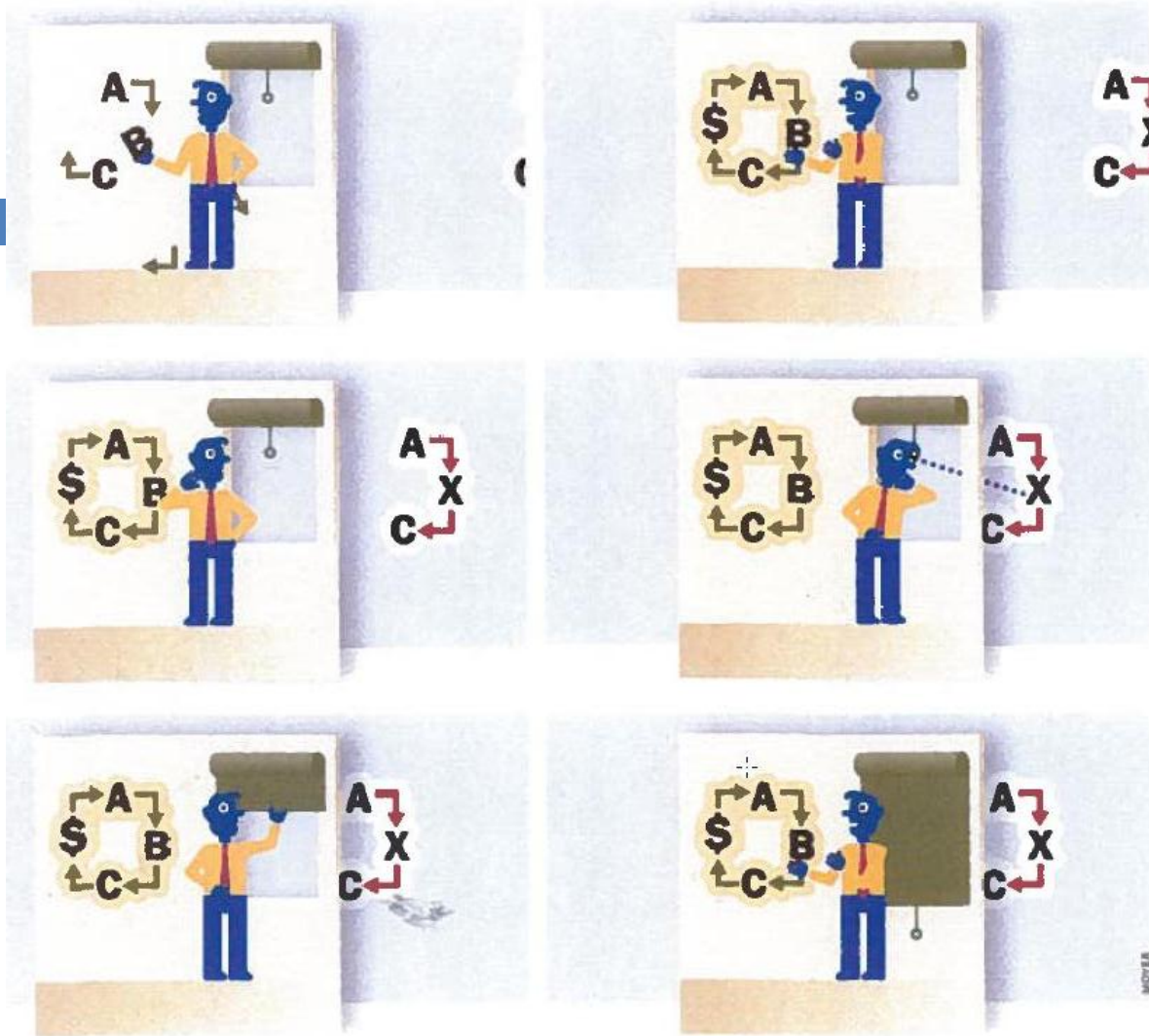


Results

RN Turnover Rates on Abdominal Transplant Unit	
Year	RN Resignations
2003	3
2004	12 (12%)
2005 (January-September)	10
January 2006 (PPC innovations begun) to December 2006	0

STRUCTURAL BARRIERS

**7. WE IGNORE EVIDENCE:
WE DO NOT LEARN FROM DATA.**

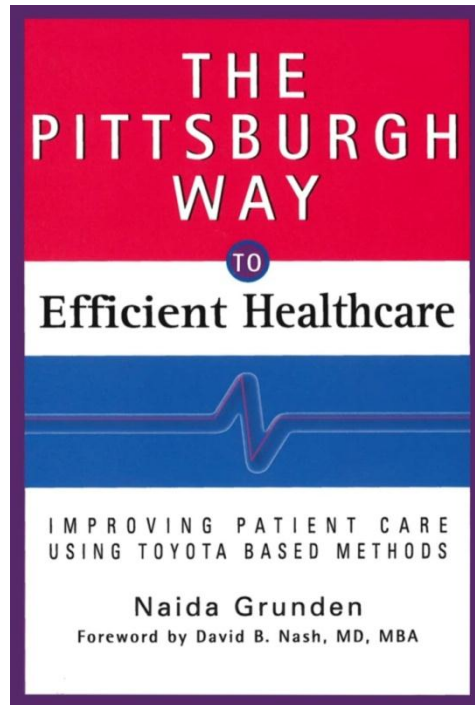


What Evidence?

We continue to believe despite ample evidence to the contrary.

Source: HBR – Don Moyer

PRHI's Early Successes Recognized

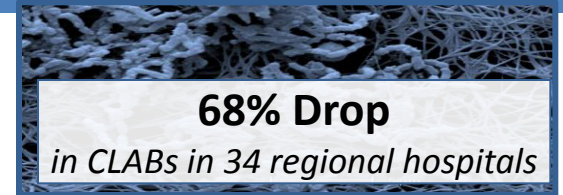


Early PRHI Successes — But



86% Reduction
in medication errors

35 to Zero!
defective charts



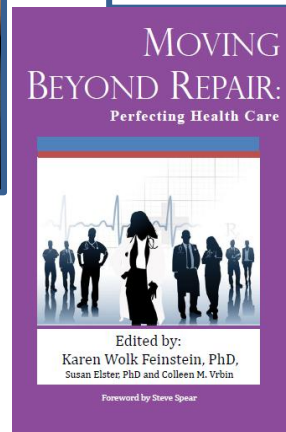
68% Drop
in CLABs in 34 regional hospitals

17% Drop
*in pediatric clinic
wait times*

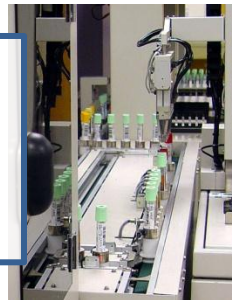
50% Reduction
*in pap smear
sampling defects*

**50% Fewer
Readmissions**
w/ COPD focus

180 to Zero!
*Lost patient hours per month
due to ambulance diversions*



**Efficiency Increased
100%**
in pathology lab



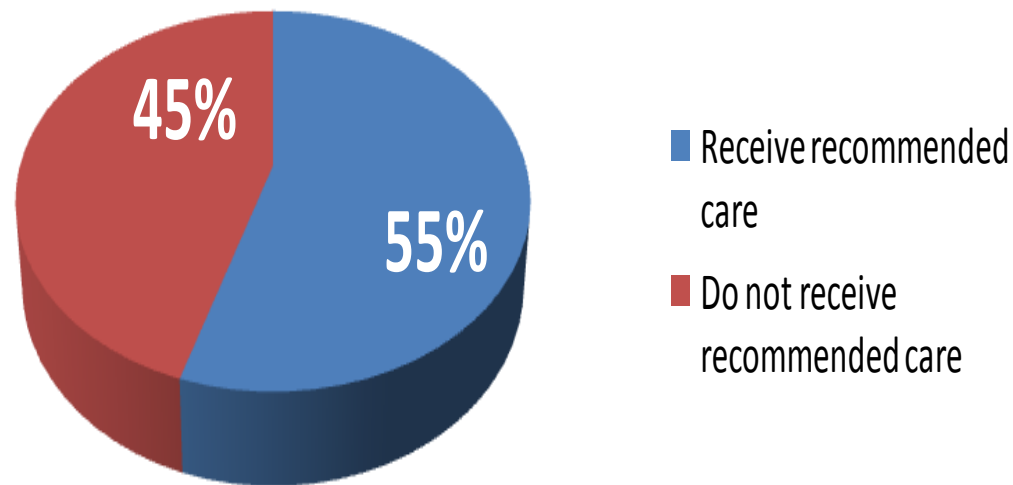
100% Reduction
in nurse turnover

>20% Decline
*Nosocomial
C. difficile
infections*

100% Compliance
*w/guidelines & aspirin
use in a diabetes clinic*

Responding to New Data

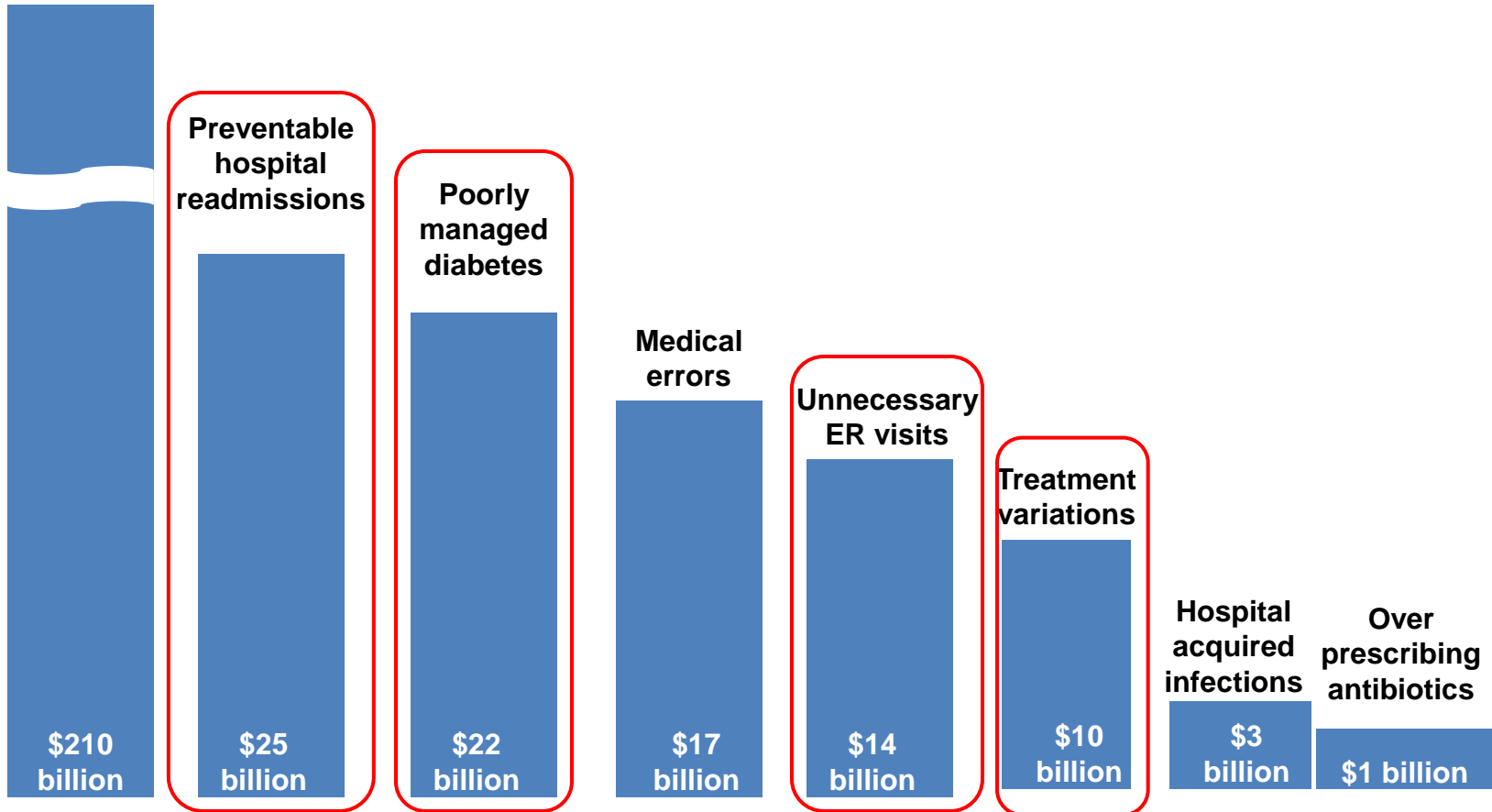
Percent of Americans receiving recommended care for preventive, chronic and acute conditions



Source: Elizabeth A. McGlynn and Robert H. Brook, Rand, June 2003

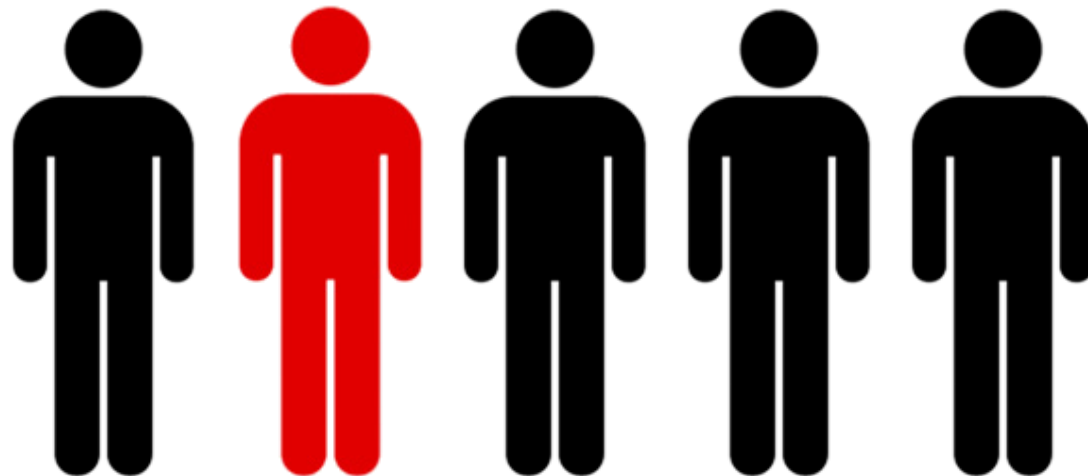
Where the Costs of Waste Lie

Overtreatment

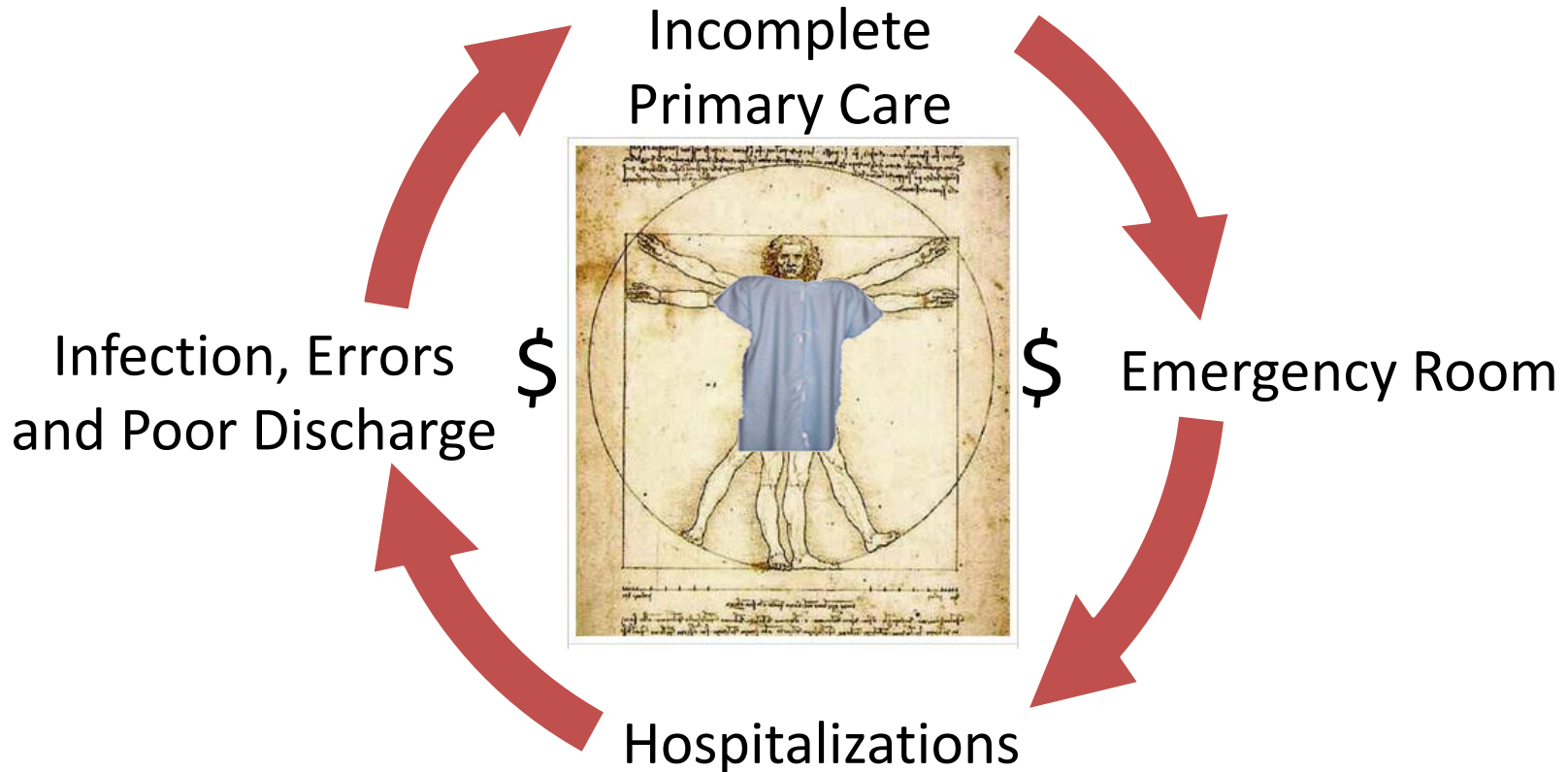


Source: Institute of Medicine (1999), "The Factors Fueling Rising Healthcare Costs 2006", PricewaterhouseCoopers (2006), Medpac (2007), American Association of Endocrinologists (2006), Center for Disease Control and Prevention (2005), Solucient (2007), U.S. Outcomes Research Group of Pfizer Inc (2005), National Committee for Quality Assurance (2005), Analysis by PricewaterhouseCoopers' Health Research Institute. 2010

PRHI found that approximately **1 in 5** patients
discharged from the hospital ***return*** within
30 days

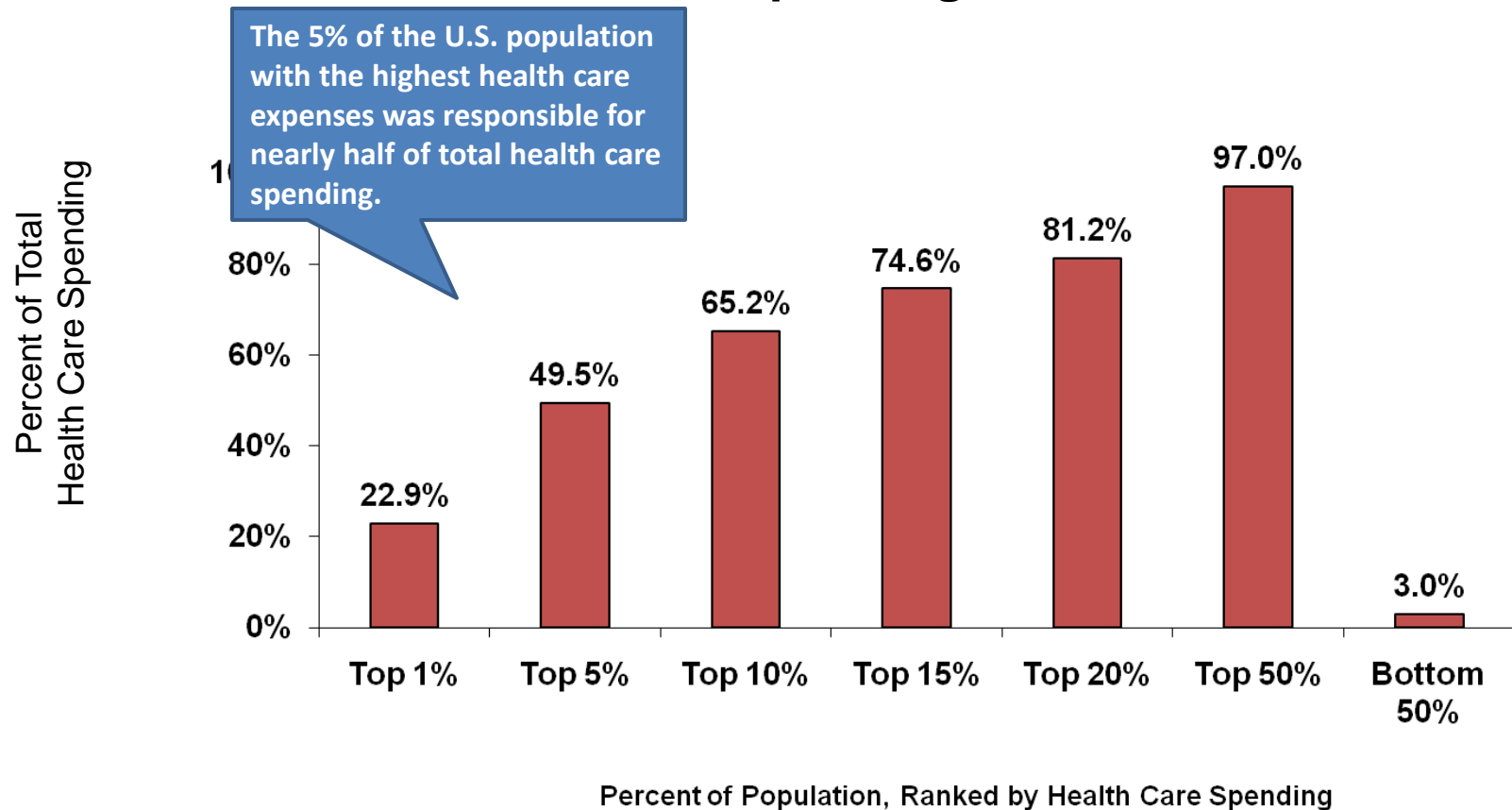


The Readmissions Cycle



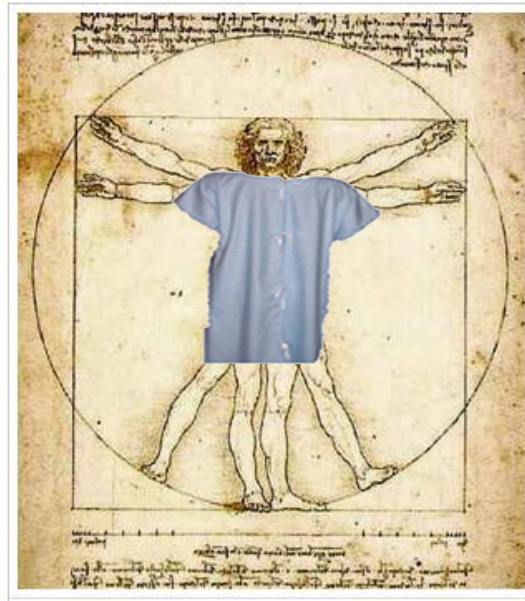
Focus on Spending Leads to Complex Patients

Concentration of Health Care Spending in the U.S. Population, 2007



The Complex Patient

Who is frequently hospitalized?



Do you know your customer?

We Let the Data Guide Our Work

The Complex Patient

PRHI Readmission Briefs

Brief 1: Overview of Six Target Chronic Diseases

INTRODUCTION

As healthcare costs continue to rise and more of Americans recover, driven in large measure by the growing burden of chronic disease, both policy proposals and demonstration projects are exploring ways to improve care and to reduce costs. In some of these efforts, hospital readmission rates have become an important measure of health system and care quality. The PRHI Readmission Briefs are designed to help a research published elsewhere, 17.1% of Medicare beneficiaries were readmitted within 30 days of discharge, resulting in \$1.1 billion in spending (mostly for Medicare) for the same period. The PRHI Readmission Briefs are designed to help a research published elsewhere, 17.1% of Medicare beneficiaries were readmitted within 30 days of discharge, resulting in \$1.1 billion in spending (mostly for Medicare) for the same period. The PRHI Readmission Briefs are designed to help a research published elsewhere, 17.1% of Medicare beneficiaries were readmitted within 30 days of discharge, resulting in \$1.1 billion in spending (mostly for Medicare) for the same period.

Methods

The report uses an in-depth review of the literature to identify the most important aspects of the PRHI Readmission Briefs (SWPA).

Advisors

Advisors for patients with Chronic Obstructive Pulmonary Disease (COPD) include the authors for a brief previously published in the literature. The PRHI Readmission Briefs are designed to help a research published elsewhere, 17.1% of Medicare beneficiaries were readmitted within 30 days of discharge, resulting in \$1.1 billion in spending (mostly for Medicare) for the same period.

PRHI Readmission Brief

Chronic Obstructive Pulmonary Disease

December 2013

PRHI

Spreading Quality, Containing Costs.

PRHI Readmission Brief

Chronic Obstructive Pulmonary Disease

December 2013

Introduction

Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death in the U.S., behind heart disease, cancer, and stroke.¹ Leading healthcare professionals believe that COPD is also currently under-diagnosed and undertreated.² Despite this, COPD admissions increased by 8% between 1997 and 2007.³ Patients with COPD made an estimated 8.6 million physician-office and outpatient visits, 1.5 emergency department visits, accounted for 726,000 hospitalizations in 2008.⁴ Moreover, annual healthcare spending for COPD was an estimated \$3.2 billion according to a 2008 report.⁵ As public education campaigns yield greater awareness of COPD, the ranks of those diagnosed could swell from the 10 million currently diagnosed, to include some of the additional 14 million Americans with evidence of impaired lung function⁶ with significant implications for health care spending.

Widely applying best practice to improve the care for patients with COPD is warranted to reduce its clinical and economic burden. However, despite the availability of comprehensive care guidelines,^{7,8} significant gaps remain in the evidence base for common recommendations. Clinical trial data, which draws on selected patient pools, provide limited guidance,⁹⁻¹² especially for clinicians managing the care of high utilizers who are often excluded from clinical trials. This is unfortunate on multiple levels because there is evidence that only a small proportion of complex COPD patients account for most healthcare spending on COPD care.¹³

Prior analysis (see Table 1) by the Pittsburgh Regional Health Initiative (PRHI) revealed that COPD represented the second-highest volume of 30-day hospital readmissions for chronic medical conditions in southwestern Pennsylvania (SWPA).¹⁴ Further, Pennsylvania's overall COPD hospitalization rate was 25% higher than the U.S. average and increased by 2007 and 2008.¹⁵

Using retrospective, all-payer hospital discharge data to examine patterns of admission and readmission, this observational study aims to expand the knowledge base needed to develop guidelines that are relevant to the management of complex COPD patients in real-world settings. It is part of a larger effort of PRHI to develop clinically practical algorithms to proactively identify hospitalized patients at highest risk for readmission.

PRHI

Spreading Quality, Containing Costs.

PRHI Readmission Reduction Guide:

A Manual for Preventing Hospitalizations

January 2011

PRHI

Spreading Quality, Containing Costs.

Chronic Disease

PRHI

Spreading Quality, Containing Costs.

BRANCHES

CHANGING OUR EXPECTATIONS OF CARE AT THE END-OF-LIFE

End of Life

EXECUTIVE SUMMARY

September 2010

PERFECTING PATIENT CARESM GOES TO SKILLED NURSING

SENIOR LIVING COMMUNITY CHANGES ITS CULTURE

PRHI

Spreading Quality, Containing Costs.

BRANCHES

PERFECTING CARE AND WORK IN SKILLED NURSING

UNDERSTANDING THE TERMS

Skilled Nursing Facility (SNF)

A skilled nursing facility (SNF) is a facility that provides nursing care to patients who are unable to be cared for at home. SNFs are typically licensed by the state and are subject to federal and state regulations. SNFs are typically used for patients who require skilled nursing care, such as those who are recovering from surgery or who have a chronic condition that requires ongoing care.

Long Term Care (LTC)

A long-term care facility (LTC) is a facility that provides care to residents who are unable to care for themselves. LTC facilities are typically used for residents who require ongoing care, such as those who are recovering from surgery or who have a chronic condition that requires ongoing care.

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PRHI

Spreading Quality, Containing Costs.

Behavioral Health and Substance Abuse

HIV/AIDS

COPD

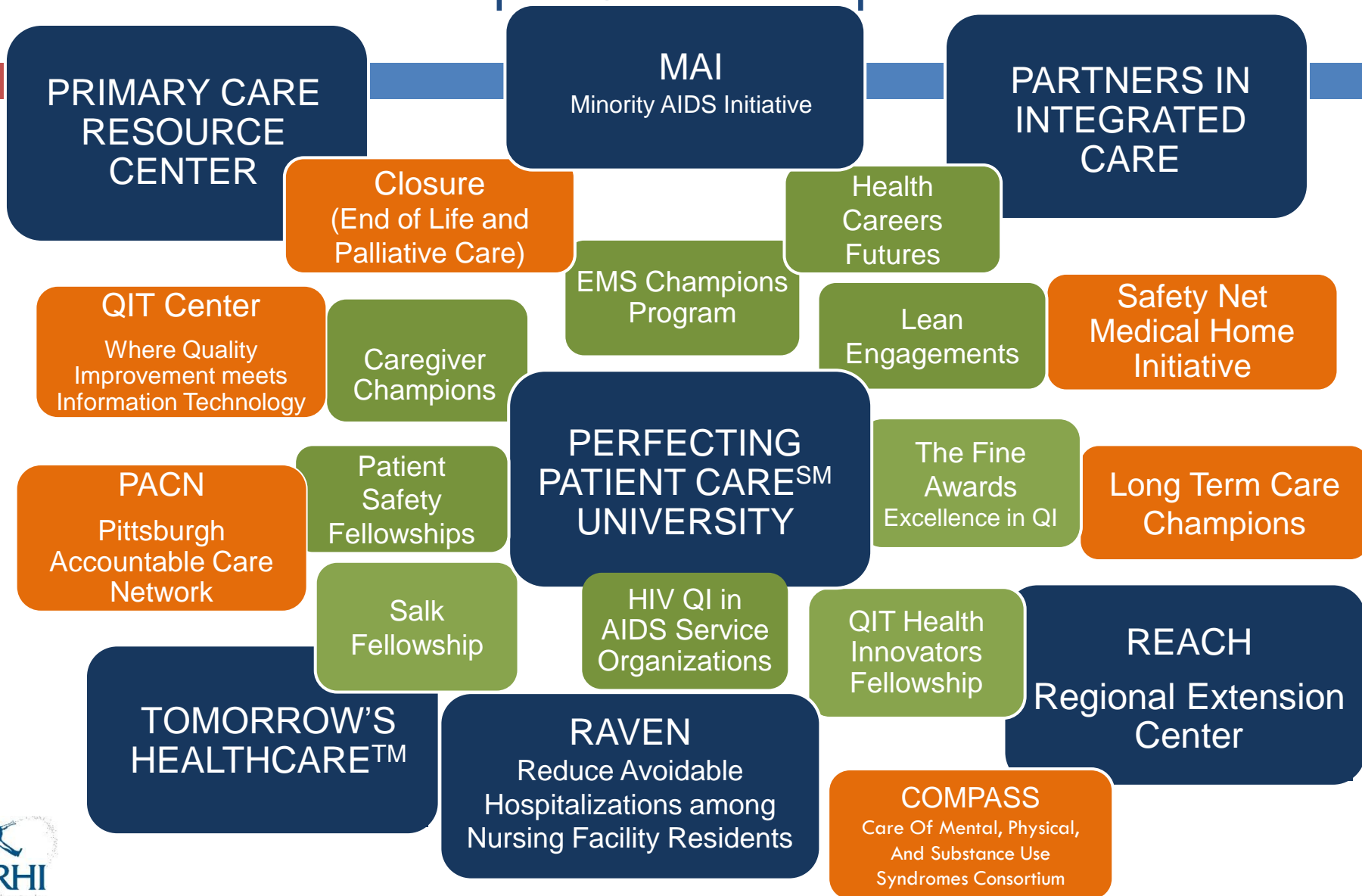
Skilled Nursing

Solution

Keep people out of hospitals

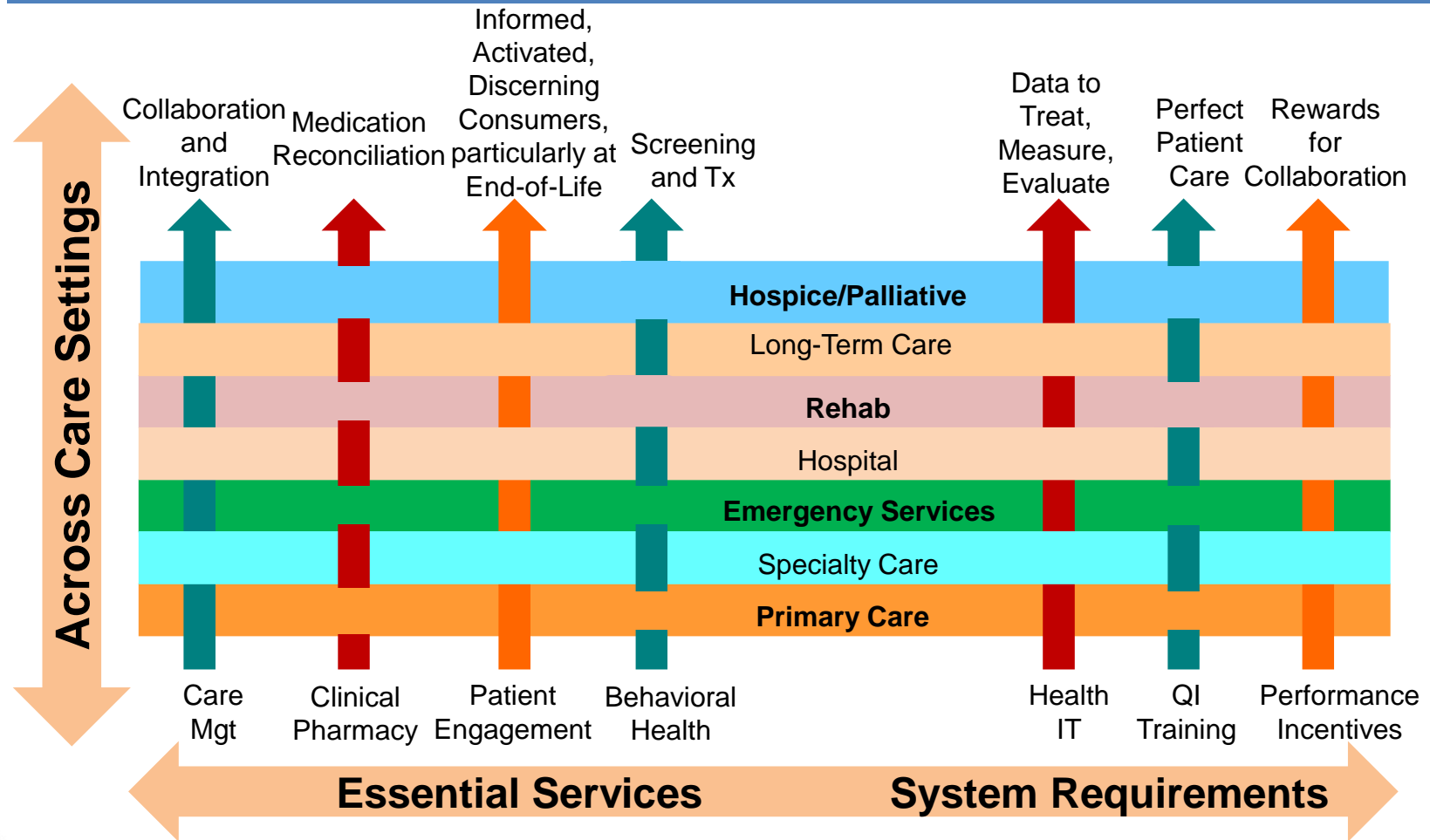


All the Programs We Do Now That Keep People Out of Hospitals



The Second Systems Vision

Solution: Transforming the Care of Complex Patients



U.S. HEALTH IN INTERNATIONAL PERSPECTIVE



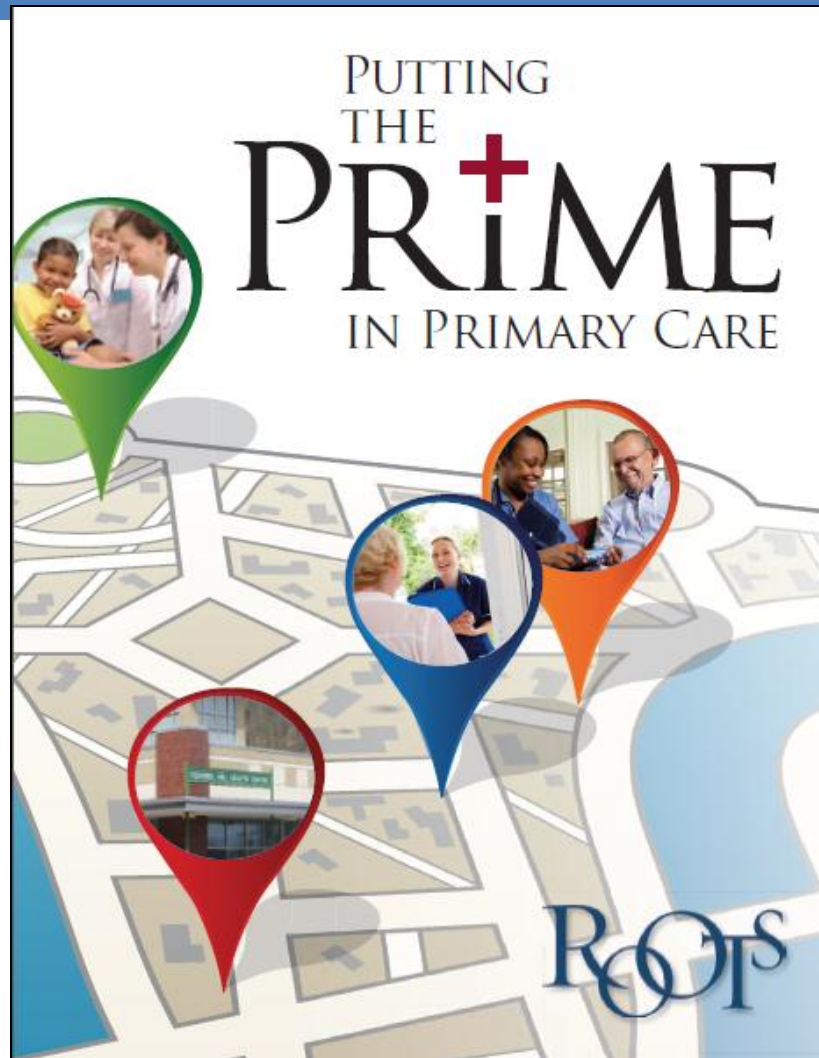
Shorter Lives, Poorer Health

NATIONAL RESEARCH COUNCIL AND
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

January 9, 2013

Solution:

Putting the Prime in Primary Care



Structural Barriers

1. Healthcare organizations are not structured for high performance.
2. Healthcare professionals get no education in creating high performing organizations.
3. There are few incentives for high performance.
4. We have leadership failures.
5. Health care employs LEAN for repairs and spot removal.
6. Culture impedes reform.
7. We ignore evidence: we do not learn from data.